



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,728	01/23/2004	Thomas J. Berwald	0092-18 CIP	7328
<div>7590 05/31/2007</div> <div>Ernest D. Buff, Esq. Ernest D. Buff & Associates LLC 231 Somerville Road Bedminster, NJ 07921</div> <div>EXAMINER TUGBANG, ANTHONY D</div> <div>ART UNIT PAPER NUMBER</div> <div>3729</div> <div>MAIL DATE DELIVERY MODE</div> <div>05/31/2007 PAPER</div>				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/763,728

Applicant(s)

BERWALD ET AL.

Examiner

A. Dexter Tugbang

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 32-65 is/are pending in the application.
- 4a) Of the above claim(s) 1-19, 33, 48, 49 and 54-65 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32, 34-47 and 50-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3729

DETAILED ACTION

Response to Amendment

1. The applicant(s) amendment filed on February 27, 2007 has been fully considered and made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

3. The restriction requirement of August 1, 2006 is hereby repeated and maintained.

Claims 1 through 19, 33, 48, 49 and 54 through 59 continue to stand as being withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on August 28, 2006.

4. Newly submitted Claims 60 through 65 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons.

(a). Paragraphs 6 through 9 of the Restriction Requirement on August 1, 2006 is repeated and clarified as a new group of III-F is now added. Within the invention of Group III, a restriction to one of the following is required under 35 U.S.C. 121.

III-A. Claim 60, drawn to a process that includes applying an adhesive with an atmospheric soak process, classified in class 156, subclass 314.

III-B. Claim 61, drawn to a process that includes providing a vessel containing the adhesive, classified in class 156, subclass 285.

Art Unit: 3729

- III-C. Claim 33, drawn to a process that includes removing a toroid from a milling assembly, classified in class 29, subclass 426.2.
- III-D. Claims 35 through 53 and 55 through 59, drawn to a process that includes placing an inner ring, an outer ring, and a hat, classified in class 29, subclass 609.
- III-E. Claims 48 and 49, drawn to a process that specifically mills with a cutting tool, classified in class 409, subclass 66.
- III-F. Claims 62 through 65, drawn to a process of curing an adhesive at a heat-treating temperature and thermal processing, classified in class 156, subclass 307.1 (NOTE: A typographical error appears to have occurred in Claims 63 through 65 as these should appear to depend from Claim 62, not Claim 32).

(b). Inventions of Groups III-A through III-F are directed to related inventions of a magnetic metal. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, each Group, e.g. III-A through III-F, has a materially different designs (e.g. manufacturing processes).

Group III-A requires applying an adhesive with an atmospheric soak process, which is not required in any of Groups III-B through III-F.

Group III-B requires providing a vessel containing the adhesive and evacuating the vessel, that is not required in Groups III-A and III-C through III-F.

Art Unit: 3729

Group III-C requires removing a toroid from a milling assembly, which is not required in any of Groups III-A, III-B, III-D, III-E and III-F.

Group III-D requires placing an inner ring, an outer ring and a hat, that is not required in any of Groups III-A through III-C, III-E and III-F.

Group III-E requires specific milling operations of milling with a cutting tool in relation to a winding axis that is not required in Groups III-A through III-D and III-F.

Group III-F requires curing an adhesive carried out at a heat treatment temperature and thermal processing, which is not required in Groups III-A through III-E.

(c). Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

(d). Claims 32 and 34 link(s) the inventions of Groups III-A through III-F.

The restriction requirement between the linked inventions is subject to the nonallowance of the linking claim(s), Claims 32 and 34, with the invention of Group III. Upon the indication of allowability of the linking claim(s), the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise requiring all the limitations of the allowable linking claim(s) will be rejoined and fully examined for patentability in accordance with 37 CFR 1.104. Claims that require all the limitations of an allowable linking claim will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier.

Art Unit: 3729

Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

Applicant(s) are advised that if any claim(s) including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

(e). Since applicant has received an action on the merits for the originally presented invention (Group III-D), this invention has been constructively elected by original presentation for prosecution on the merits.

Accordingly, within the invention of Group III-D, Claims 33, 48, 49 and 54 through 65 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164

Art Unit: 3729

USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 32, 34 through 47 and 50 through 53 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 32, 34 through 47 and 50 through 53 of copending Application No. 10/876,034 in view of Decristofaro et al 6,803,694.

Most of the limitations of the claims of the instant application are recited in claims of the copending application. However, the claims of the copending application contain one additional step of "applying a magnetic field to the toroid".

Decristofaro teaches that as a result of forming a toroid, the toroid operates in a magnetic field (col. 5, lines 50+). Also, the toroid of the claims of the instant application are an art recognized equivalent of the toroid of Decristofaro at least to extent that both are wound with a soft magnetic metal ribbon material and both operate electrically with a current.

It would have obvious to one of ordinary skill in the art at the time the invention was made to have modified the claims of the instant application by adding the step of applying a magnetic field, as taught by Decristofaro, as the application of the magnetic field is a direct result of the operating parameters of the toroid.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 102

7. Claims 32 and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Decristofaro et al 6,803,694.

Decristofaro discloses a method comprising: winding a soft magnetic material ribbon into a toroid (col. 12, lines 54-60); containing the toroid within a milling assembly (col. 14, lines 16+); applying an adhesive and curing the adhesive (col. 13, lines 50-60); milling the toroid into an electro-mechanical component shape (col. 14, lines 15+); and thermally processing the component shape into a electro-mechanical component by heating (col. 13, lines 23+).

Claim Rejections - 35 USC § 103

8. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Decristofaro et al in view of Villano Re. 28,559.

Decristofaro discloses a method as relied upon above in Claims 32 and 34. Decristofaro does not mention that the milling assembly includes a hat.

Villano teaches a process that includes a milling assembly that includes a work support (e.g. 40, 133, 128). This work support can broadly be read alternatively as either as a hat to mill radial slots within the torroid (e.g. circular member).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Decristofaro by adding the hat, as taught by the work support of Villano, to positively mill the torroid.

Art Unit: 3729

Response to Arguments

9. The applicant(s) arguments filed on February 27, 2007 have been fully considered but they are not persuasive.

In regards to the merits of Decristofaro et al, the applicant(s) urge that Decristofaro does not teach containing the toroid within a milling assembly (line 4 of Claim 32).

The examiner most respectfully disagrees as Decristofaro certainly meets the above limitations in question.

Decristofaro explicitly recites winding of a ferromagnetic amorphous metal strip into a cylindrical shape (col. 12, lines 53-58). It is this ferromagnetic amorphous metal strip that is read as a “soft magnetic material ribbon” and the wound cylindrical shape of the strip that is read as the “torroid”.

Apparently, the applicant(s) have overlooked the various types of milling assemblies discussed by Decristofaro. Decristofaro mentions milling the soft magnetic material ribbon within a whole host of different types of milling assemblies, e.g. mechanical grinding, *wire cutting*, water jet, *electric discharge machining by wire*, etc. (col. 14, lines 16+). Take for example the use of the milling assembly of either a wire cutter or electric discharge machining by wire. Decristofaro mills the torroid by forming slots within, or inside of, the wound soft magnetic material ribbon (look at Figure 1). In order for this type of milling to occur, the torroid has to be inserted *within* or *between* a portion of the milling assembly that holds the wire such that the wire would cut or mill *into* the torroid and form the slots. This clearly means that the torroid is contained “within a milling assembly” in order to form the slots within the torroid.

Art Unit: 3729

Furthermore, each of the milling assemblies that Decristofaro mentions has a certain boundary and certainly the torroid is placed within this boundary in order for milling to occur. Therefore, Decristofaro clearly meets the limitations of “containing...assembly” (line 4 of Claim 32).

In regards to the merits of Villano, the workpiece of Villano can be read as a “hat” any device that must be milled must be placed on this “hat” for it to be milled. Thus, placing the torroid of Decristofaro, including the top, or top surface, of the torroid on the hat (e.g. workpiece) of Villano would be obvious for the reasons set forth (in paragraph 6) above and in order for the torroid to be milled. Moreover, it would be obvious to mill the torroid of Decristofaro with the milling assembly of Villano or order for the slots in the torroid to be formed.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Decristofaro et al and Villano share the concept of milling as the milling machine of Villano can be used to mill the torroid of Decristofaro.

10. It is noted that the applicant(s) arguments, see remarks (pages 16-18) of the response filed on February 27, 2007, with respect to Claims 35 and 36 have been fully considered and are persuasive. Neither Decristofaro nor Villano teach placing an inner

Art Unit: 3729

ring circumferentially about at least a portion of the inner side surface of the torroid, or placing an outer ring circumferentially about at least a portion of the outer side surface of the torroid. Consequently, the 103 rejections of Claims 35 and 36 have been withdrawn.

Allowable Subject Matter

11. It is noted that if the applicant(s) were to file a Terminal Disclaimer (see paragraph 5 above), then Claims 35, 36, 38 through 47 and 50 through 53 would be objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

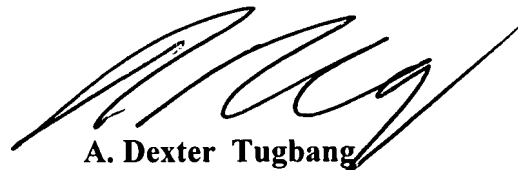
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 3729

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570. The examiner can normally be reached on Monday - Friday 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



A. Dexter Tugbang
Primary Examiner
Art Unit 3729

May 16, 2007